

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION**

**FACT SHEET
ORDER NO. R9-2003-0179
NPDES PERMIT NO. CA0107492
WASTE DISCHARGE REQUIREMENTS
FOR THE
PADRE DAM MUNICIPAL WATER DISTRICT
PADRE DAM WATER RECYCLING FACILITY
DISCHARGE TO
SYCAMORE CREEK AND THE SAN DIEGO RIVER
SAN DIEGO COUNTY**

1. AGENCY / FACILITY INFORMATION

Agency name: Padre Dam Municipal Water District

Agency Mailing Address: P.O. Box 719003
Santee, California 92072-9003

Facility Name and Location: Padre Dam Water Recycling Facility
12001 N. Fanita Parkway
Santee, California 92072

Contact Person: Mr. Harold E. Bailey
Director of Operations and Water Quality

Telephone: (619) 448-3111

2. BACKGROUND

- A. On June 10, 1998, this Regional Board adopted Order No. 98-60, NPDES Permit No. CA0107492, *Waste Discharge Requirements for Padre Dam Municipal Water District (PDMWD) Padre Dam Water Recycling Facility (PDWRF) Discharge to Sycamore Creek and the San Diego River, San Diego County*. Order No. 98-60 established requirements for the discharge of up to 2.0 million gallons per day (MGD) of tertiary treated municipal wastewater from the PDWRF through the Santee Lakes, to Sycamore Creek, tributary to the San Diego River. Order No. 98-60 contains an expiration date of June 21, 2003.
- B. Pursuant to Reporting Requirement E.14 of Order No. 98-60, PDMWD was required to submit their report of waste discharge 180 days prior to the June 21, 2003 expiration date. On December 20, 2002, the PDMWD submitted a complete National Pollutant Discharge Elimination System (NPDES) permit application for the renewal of Order No. 98-60.

Since the discharger has submitted a complete application for renewal of the NPDES permit, Order No. 98-60 is administratively extended until the adoption of tentative Order No. R9-2003-0179 pursuant to Title 40 of the Code of Federal Regulations (CFR), Part 122.41(b) [40 CFR 122.41(b)].

- C. Order No. R9-2003-0179 shall serve as an NPDES permit for the discharge of treated wastewater from the PDWRF to the San Diego River and/or its tributaries pursuant to Section 402 of the Clean Water Act and amendments thereto.
- D. On December 10, 1997, this Regional Board adopted Order No. 97-49, *Waste Discharge and Water Recycling Requirements for the Production and purveyance of Recycled Water for Padre Dam Municipal Water District*. Order No. 97-49 establishes requirements for the discharge to land of up to 2.0 MGD of recycled water from the PDWRF within the Santee and El Cajon hydrologic subareas (HSA).

3. FACILITY DESCRIPTION

- A. The PDWRF has a design capacity of 2.0 MGD. PDMWD collects wastewater from City of Santee, a portion of the City of El Cajon, and portions of the unincorporated communities of Alpine, Blossom Valley, Crest, Dehesa, El Cajon, Flinn Springs, Harbison Canyon, and Lakeside. Total wastewater collection within the PDMWD sewered area for year 2002 (through October 2002) averaged 4.98 MGD. Of this total, 3.27 MGD was directed to the City of San Diego Metropolitan (Metro) wastewater collection system and 1.71 MGD was directed to the PDWRF.
- B. The PDWRF has primary, secondary, and tertiary treatment processes. Primary clarifiers remove settleable solids and floating material, which are directed back into the Metro system. Secondary treatment is provided through the Bardenpho process that involves a series of aeration and anoxic stages to achieve biological removal of nitrogen and phosphorous. After biological treatment, flow is directed to secondary clarifiers where settleable solids and floating material is removed. The waste sludge is directed to the Metro system. The tertiary process is designed to comply with the State of California Department of Health Services (DHS) regulations for "disinfected, filtered wastewater" for unrestricted use. Tertiary treatment is provided through alum and polymer addition, flocculation and sedimentation, denitrifying filtration, chlorination, and dechlorination.
- C. Most of the water treated at the PDWRF is recycled and sent to reuse sites in the Santee and El Cajon HSAs. The water not sent to reuse sites is discharged to the Santee Lakes, a series of seven man-made lakes. PDMWD owns and operates the Santee Lakes as a recreational facility. These artificial lakes are not waters of the United States. Effluent first enters Lake No. 7 and flows by gravity through each lake until eventually reaching Lake No. 1, which flows into Sycamore Creek, a tributary of the San Diego River. As the Santee Lakes are kept at a constant level, flow to the creek is regulated by the amount released from the treatment plant into the lake system.

- D. Flow statistics for 2002: The PDWRF received an average influent flow of 1.7 MGD. The average amount recycled and sent to reuse sites was 0.9 MGD. The average discharge to Lake No. 7 was 0.8 MGD and the average discharge from Lake No. 1 to Sycamore Creek was 0.7 MGD. Monthly average flow rates from Lake No. 1 to Sycamore Creek ranged from 1.5 MGD in the winter to no discharge during the summer.
- E. The discharge from the PDWRF to Sycamore Creek and the San Diego River has a threat to water quality/complexity rating of category 1A.

4. DESCRIPTION OF DISCHARGE

The discharge point from Lake No. 1 into Sycamore Creek is located immediately adjacent to Lake No. 1 approximately 1000 feet north of Carlton Oaks Drive (lat. 32° 50' 45", lon. 117° 00' 15") in the City of Santee. Sycamore Creek flows through decorative ponds within the Carlton Oaks Country Club golf course for approximately one mile before entering the San Diego River.

5. RECEIVING WATER

- A. The Lower San Diego River is a 20-mile urban waterway in the San Diego River Watershed of the San Diego Region with year-round flow. The San Diego River originates in the East County, passing through Lakeside and Santee, and then runs parallel to Interstate 8 all the way to the Pacific Ocean coastline where it discharges near Ocean Beach. The lower portion of the river begins just north of Lake Jennings, near the town of Lakeside.
- B. The Water Quality Control Plan for the San Diego Basin (9), (Basin Plan) was adopted by this Regional Board on September 8, 1994 and subsequently approved by the State Water Resources Control Board (SWRCB). Subsequent revisions to the Basin Plan have also been adopted by the Regional Board and approved by the State Board. The Basin Plan identifies the beneficial uses of all surface and ground waters of the region and establishes numerical and narrative water quality objectives, and implementation plans, for the protection of identified beneficial uses.
- C. The Basin Plan identifies the following beneficial uses of surface waters of the Mission San Diego and Santee Hydrologic Subareas (HSA 7.11 and HSA 7.12), which includes Sycamore Creek and the San Diego River:
 - a. agricultural supply (AGR)
 - b. industrial service supply (IND)
 - c. contact and non-contact water recreation (REC1 and REC2)
 - d. warm freshwater habitat (WARM)
 - e. cold freshwater habitat (COLD)

- f. wildlife habitat (WILD)
 - g. preservation of rare, threatened or endangered species (RARE)
- D. The Basin Plan identifies the following beneficial uses of ground waters of the Mission San Diego and Santee Hydrologic Subareas (HSA 7.11 and HSA 7.12):
 - a. municipal and domestic supply (MUN)
 - b. industrial service and process supply (IND and PROC)
 - c. agricultural supply (AGR)
- E. No Areas of Special Biological Significance (ASBS) have been designated downstream of the discharge location.
- F. Receiving water monitoring data indicates that the total nitrogen concentrations in the upstream and downstream San Diego River waters are greater than the Basin Plan numerical objective of 1.0 mg/l. Likewise, downstream total phosphorous concentrations are greater than the Basin Plan objective of 0.1 mg/l. Receiving water monitoring data also suggests, however, that the subject discharge is not the primary contributor of nutrient loads in the receiving waters (see Section 6 for more information regarding nutrients).
- G. Preliminary benthic macroinvertebrate analyses performed in the lower San Diego River receiving waters (downstream of the discharge) in 1998, 1999, and 2000 indicate a “fair to poor” index of biotic integrity (IBI), which is a multimetric analytical approach recommended by the United States Environmental Protection Agency (USEPA) for assessing the overall “ecological health” of an aquatic community. However, there is no correlation established between the elevated nutrient loading and the “fair to poor” rating.
- H. The SWRCB adopted the 2002 Clean Water Act section 303(d) list of water quality limited segments at its February 4, 2003 Board Meeting. The list was approved by the USEPA on July 25, 2003. The Lower San Diego River (HSA 7.11 and HSA 7.12) is listed as an impaired water body due to elevated fecal coliform, low dissolved oxygen, elevated phosphorus, and elevated total dissolved solids. If/when Waste Load Allocations (WLAs) are calculated in accordance with Total Maximum Daily Load (TMDL) procedures, limits contained in this or subsequent Orders will be modified accordingly.

6. BASIS OF EFFLUENT LIMIT DETERMINATIONS

A. Total Suspended Solids, Biochemical Oxygen Demand, and pH

40 CFR 133.102 establishes minimum secondary treatment requirements for total suspended solids (TSS), biochemical oxygen demand (BOD), and pH. The TSS, BOD, and pH limits contained in Order No. R9-2003-0179 are more stringent than the federal secondary treatment requirements. The effluent concentration and mass emission rate

(MER) limits established for BOD and TSS are based in part on treatment performance data for the PDWRF and were determined using best professional judgment (BPJ) pursuant to 40 CFR 125.3. The basis for the effluent limit for pH is the Basin Plan objective, which requires the pH to be between 6.5 and 8.5 at all times. The limits are the same as contained in Order No. 98-60.

B. Nutrients

The Basin Plan establishes the following Biostimulatory Substances Objectives for nitrogen and phosphorus, which are applicable to surface waters in the Mission SD and Santee HSAs:

Inland surface waters, bays, and estuaries and coastal lagoon waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent that such growths cause nuisance or adversely affect beneficial uses.

Concentrations of nitrogen and phosphorus, by themselves or in combination with other nutrients, shall be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total Phosphorus (P) concentrations shall not exceed 0.05 mg/l in any stream at the point where it enters any standing body of water, nor 0.025 mg/l in any standing body of water. A desired goal in order to prevent plant nuisance in streams and other flowing waters appears to be 0.1 mg/l total P. These values are not to be exceeded more than 10% of the time unless studies of the specific water body in question clearly show that water quality objective changes are permissible and changes are approved by the Regional Board. Analogous threshold values have not been set for nitrogen compounds; however, natural ratios of nitrogen to phosphorus are to be determined by surveillance and monitoring and upheld. If data are lacking, a ratio of N:P = 10:1, on a weight to weight basis shall be used.

Note – Certain exceptions to the above water quality objectives are described in Chapter 4 in the sections titled Discharges to Coastal Lagoons from Pilot Water Reclamation Projects and Discharges to Inland Surface Waters.

Nutrient enrichment can cause reduction in dissolved oxygen. The Basin Plan establishes the following applicable objectives for dissolved oxygen:

Dissolved oxygen levels shall not be less than 5.0 mg/l in inland surface waters with designated MAR or WARM beneficial uses or less than 6.0 mg/l in water with designated COLD beneficial uses. The annual mean dissolved oxygen concentration shall not be less than 7 mg/l more than 10% of the time.

PDMWD has collected and continues to collect data for nitrogen, phosphorous, and dissolved oxygen at six monitoring sites along the San Diego River. The 2002 303(d)

listing of the Lower San Diego River as impaired for phosphorous and low dissolved oxygen was based largely on these data. Table 1 summarizes the nitrogen, phosphorous, and dissolved oxygen data submitted by PDMWD for the period 1998 to 2002.

Table 1. Nitrogen, Phosphorous, and Dissolved Oxygen Monitoring Data, 1998 - 2002

Location	Total Nitrogen (mg/l)		Total Phosphorous (mg/l)		Dissolved Oxygen (mg/l)	
	Mean	Median	Mean	Median	Mean	Median
SD River at Carlton Hills	1.0	0.9	0.08	0.07	5.0	4.7
Forester Creek	5.0	4.1	0.10	0.08	6.9	7.2
Combined Upstream SD River ¹	2.7	2.5	0.09	0.10	NC ²	NC ²
Discharge from Lake No. 1	1.8	1.7	0.15	0.12	7.7 ³	NC ²
SD River at Mast Boulevard	1.6	1.3	0.17	0.15	5.4	5.0
SD River at Old Mission Dam	1.2	1.0	0.21	0.20	5.3	5.3
SD River at Mission Ponds	1.1	1.0	0.22	0.21	3.9	3.1
SD River at Fashion Valley Rd	1.3	1.1	.22	.20	4.5	4.0

1 Computed combination of flows from San Diego River at Carlton Hills and Forester Creek at San Diego River Confluence

2 NC = not calculated

3 Data from 2000 - 2002

When compared to the average upstream flow and concentration in the San Diego River, the discharge from Lake No. 1 contributes an average of approximately 11% of the total nitrogen and 14% of the total phosphorous at the point of discharge. However, as additional flow and nutrient load is added downstream, the percentage of overall nutrient loading attributable to the discharge decreases.

Chapter 4 of the Basin establishes the following methods for compliance with the nitrogen and phosphorus water quality objectives:

The Regional Board may use the goal for phosphorus concentration in flowing water contained in the Biostimulatory Substances Objective as guidance in establishing appropriate effluent limitations; or

Alternatively, the Regional Board may determine compliance with the narrative objective based on the following four factors:

-] measurement of ambient concentrations of nitrogen and phosphorus;*
-] the dissolved oxygen requirements of downstream beneficial uses;*
-] use of best available technology (BAT) economically feasible for the removal of nutrients; and*
-] the development and implementation of a watercourse monitoring and management plan.*

Order No. 98-60 established effluent limitations for nitrogen and phosphorus based on best professional judgement and specified that compliance with the narrative objectives of the Basin Plan be determined based on the four factors listed above. Order No. R9-2003-0179 contains more restrictive effluent nitrogen and phosphorus mass emission rate limitations based on the Basin Plan numerical objectives of 0.1 mg/l for phosphorous and 1.0 mg/l for nitrogen and a flowrate of 2 MGD. The decision to issue more restrictive nitrogen and phosphorous limits is based on the 303(d) listing of the Lower San Diego River as an impaired water body due to low dissolved oxygen and elevated phosphorus, ongoing detection of nitrogen and phosphorous concentrations in excess of the Basin Plan numerical water quality objectives, and benthic macroinvertebrate analyses indicating a "fair to poor" IBI in the San Diego River.

C. Priority Pollutants

Federal priority pollutant criteria have been promulgated by the USEPA in the 1992 National Toxics Rule (NTR) 40 CFR 131.36 (amended in 1995). These criteria have been supplemented by the USEPA in 40 CFR 131.38, the California Toxics Rule (CTR), adopted in May 2000. On March 2, 2000 the State Water Resources Control Board adopted the *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Implementation Policy). The policy establishes implementation procedures for determining appropriate water quality standards and objectives. The priority pollutant criteria limitations in Order No. R9-2003-0179 have been determined using the California Permit Writer and Training Tool (CAPWTT) model, in accordance with the CTR and Implementation Policy, to adjust the applicable metals criteria, run a Reasonable Potential Analysis (RPA), and convert the resulting criteria into limitations.

CAPWTT model entry parameters for all constituents include: no dilution credits, receiving water hardness of 400 mg/l (recommended as the default in receiving waters with a hardness greater than 400 mg/l), and annual effluent and ambient data collected from 1999 through 2002. Only bis (2-ethylhexyl) phthalate was found to have a reasonable potential to cause or contribute to exceedance of the CTR water quality criteria. Consequently, effluent limits for this pollutant are specified in Order No. R9-2003-0179. If, at a later date, effluent monitoring data for the CTR priority pollutants demonstrates a reasonable potential for other pollutants to cause or contribute to exceedance of the CTR water quality criteria, this permit may be modified or amended to include new effluent limitations. Furthermore, if at any time the discharger feels that a criterion or objective is inappropriate for these particular receiving waters, the discharger may submit evidence to the Regional Board in support of designating a site-specific objective/criteria, in accordance with Section 5.2 of the Implementation Plan.

D. Chlorine Residual

Residual chlorine left over from the disinfection process may be toxic to aquatic organisms. Therefore, the permit contains limits for total residual chlorine. Although the Basin plan does not contain objectives for total residual chlorine, it does contain narrative objectives prohibiting discharges that cause toxicity to aquatic organisms. The total residual chlorine effluent limits in the permit are based on *USEPA's Quality Criteria for Water – 1986* (“Gold Book”) (1986) and *Ambient Water Quality Criteria for Chlorine – 1984* (1985). The limits are the same as contained in Order No. 98-60.

E. Toxicity

The Implementation Policy requires chronic toxicity effluent limitations in permits for all discharges that will cause, have reasonable potential to cause, or contribute to chronic toxicity in receiving waters. The effluent from the PDWRF is analyzed quarterly for chronic toxicity using the fathead minnow (*Pimephales promelas*), water flea (*Ceriodaphnia dubia*), and green alga (*Selenastrum capricornutum*) as test species. A reasonable potential analysis was performed using the procedures prescribed in the *Technical Support Document for Water Quality-based Toxics Control* (USEPA 1991) using effluent chronic toxicity data from 1999 to 2003. The results indicate that the effluent from the PDWRF has a reasonable potential to cause chronic toxicity in the receiving water. Therefore, Order No. R9-2003-0179 contains narrative chronic whole effluent toxicity (WET) limitations, toxicity identification evaluation (TIE) and toxicity reduction evaluation (TRE) trigger conditions, and monitoring requirements, in accordance with EPA’s Guidance of Implementing WET Testing Programs (May 31, 1996).

F. Recycled Water Use Criteria

California Code of Regulations (CCR), Title 22 establishes criteria for the use, and purveyance of recycled water. Order No. R9-2003-0179 contains effluent limitations (for coliform, turbidity, and chlorination contact time) in accordance with CCR Title 22.

G. Anti-backsliding

The discharge limits contained in Order No. R9-2003 are as stringent or more stringent than those of the previous permit in accordance with anti-backsliding policies.

7. REPORTING REQUIREMENTS

Due dates for monitoring reports, as well as the units and unit abbreviations therein, were changed as appropriate to ensure consistency with reporting requirements in the State Water

Resources Control Board's (SWRCB's) *Water Quality Permit Standards Team; Final Report*, of April 1999.

8. RECEIVING WATER MONITORING

MRP No. R9-2003-0179 eliminates the furthest downstream receiving water monitoring station because it is too far downstream to provide useful information in assessing impacts from the PDWRF discharge on the receiving waters. Furthermore, the MRP reduces the required frequency of monitoring at the receiving water stations from biweekly between April 1 and October 1 and monthly between October 2 and March 31 to monthly all year. The MRP adds additional analyses, including chlorophyll-a concentration and macroinvertebrate and periphyton bioassessment, at those stations closer to the discharge to more accurately assess impacts to downstream water quality and beneficial uses. Furthermore, the MRP adds two new stations along Sycamore Creek within the Carlton Oaks Golf Course. The MRP has also been amended to require an annual discussion of the receiving water monitoring results.

9. ANTIDegradation ANALYSIS

The Regional Board has taken into consideration the requirements of the State and Federal "antidegradation" policies and has determined that the subject discharge is consistent with the Antidegradation Policies for the following reasons:

- A. The terms and conditions of Order No. R9-2003-0179 require that the existing beneficial uses and water quality of the San Diego River and/or its tributaries be maintained and protected;
- B. The discharge limits contained in Order No. R9-2003-0179 require that the quality of the discharge be maintained at the levels required in the previous permit or improved;
- C. The discharge from the PDWRF to the San Diego River and/or its tributaries is necessary to accommodate economic and social development important to the people of the communities of the San Diego region;
- D. No surface waters covered under the terms and conditions of Order No. R9-2003-0179 have been designated an outstanding national resource water by the State Water Resources Control Board; and
- E. No surface waters covered under Order No. R9-2003-0179 have been designated as ASBS by the State Water Resources Control Board.

10. STORM WATER REGULATION

On November 16, 1990, the USEPA promulgated NPDES permit application requirements for stormwater discharges (40 CFR Parts 122, 123, and 124) which are applicable to the PDWRF. On April 17, 1997 the SWRCB adopted Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, Waste Discharge Requirements (WDRs) for Discharges of Storm Water Associated With Industrial Activities Excluding Construction

Activities. Stormwater discharges from PDMWD's PDWRF are subject to the terms and conditions of Water Quality Order No. 97-03-DWQ.

11. PRETREATMENT

The discharger is not required to have a pretreatment program pursuant to Section 307 of the Clean Water Act; Parts 35 and 403 of Title 40, Code of Federal Regulations (40 CFR 35 and 40 CFR 403); and/or Section 2233, Article 4, Subchapter 9, Chapter 3, Title 23, California Code of Regulations (CCR), because the discharge is less than 5 MGD. However, the City of San Diego, through agreement with the PDMWD, does regulate industries in the PDMWD service area.

12. BIOSOLIDS

Management of all solids and biosolid is required to comply with 40 CFR Parts 257, 258, 501, and 503; CWA Part 405(d); and Title 27 of the CCR, including all monitoring, record-keeping, and reporting requirements. Since the State of California, hence the Regional and State Boards, has not been delegated the authority by the USEPA to implement the biosolid program, enforcement of biosolid requirements of CFR Part 503 is under USEPA's jurisdiction. Once biosolid leaves the PDWRF, it is subject to all applicable local, state, and federal laws and regulations. At this time, all biosolids are discharged to the sanitary sewer and eventually removed by the City of San Diego wastewater treatment facilities.

13. PROCEDURE FOR FINAL DECISION

- A. In accordance with 40 CFR 124.10, the RWQCB must issue a public notice that an NPDES permit has been prepared and that the permit will be brought before the RWQCB at a public hearing. The public notice must be issued at least 30 days prior to the public hearing. A public notice was published in the San Diego Union-Tribune on August 11, 2003 to notify the public of the RWQCB's intent to hold a public hearing on tentative Order No. R9-2003-0179 at its September 10, 2003 meeting. Additionally, a Fact Sheet, tentative Order, and tentative monitoring and reporting program were mailed to all known interested parties on August 11, 2003.
- B. The September 10, 2003 hearing was postponed. A notice is tentatively scheduled to be published in the San Diego Union-Tribune on October 10, 2003 to notify the public that the hearing has been rescheduled to the RWQCB's November 12, 2003 meeting.
- C. Responses to all written comments received prior to the cancelled September 10, 2003 hearing were prepared, together with an errata sheet modifying the August 11, 2003 tentative order, and mailed to all interested parties on September 5, 2003. The changes contained in the Errata sheet have been incorporated into the attached version of the tentative Order.

- D. All comments or objections received by the appropriate date will be considered in the formulation of the final permit. A public hearing is scheduled for the November 12, 2003 RWQCB meeting at the RWQCB Office, 9174 Sky Park Court, Suite 100, San Diego, California. The meeting is scheduled to begin at 9:00 A.M. Written statements may be presented at the public hearing, and all comments and objections will be considered by the RWQCB.
- E. Persons wishing to comment upon or object to the NPDES permits are advised to submit their comments in writing, to the California Regional Water Quality Control Board, San Diego Region, 9174 Sky Park Court, Suite 100, San Diego, CA 92123-4340. To ensure that written comments are provided to the Regional Board for review prior to the hearing, written comments must be received at the Regional Board office no later than 5:00 pm on Wednesday, November 5, 2003.
- F. For further information regarding this NPDES permits or public hearing, contact Mr. David Hanson in writing at the above address or by telephone at (858) 467-2724. Related documents and information are on file and may be viewed at the above address, telephone (858) 467-2952, fax (858) 571-6972. Review of files can be conducted Monday through Friday between the hours of 8:00 am to 5:00 pm.
- G. After the close of the public hearing, the RWQCB may adopt a final order. The final order will become effective 10 days after the date of its adoption, unless a later date is specified by the RWQCB. The monitoring and reporting program will become effective January 1, 2004.
- H. RWQCB adoption of the final order may be petitioned for review to the SWRCB. Petitions for review to the SWRCB must be filed in writing within thirty (30) days following the RWQCB adoption of the final order, and must be sent to the State Water Resources Control Board, P.O. Box 100, Sacramento, CA 95801.

14. REFERENCES FOR THE DETERMINATION OF NPDES WASTE DISCHARGE REQUIREMENTS

The following documents provide the necessary references for the basis of this NPDES permit:

- A. Title 40 of the Code of Federal Regulations (CFR) Part 131, *Water Quality Standards, California Toxics Rule (CTR)*.
- B. 40 CFR Part 133 (40 CFR 133), Secondary Treatment Regulation.
- C. USEPA NPDES Permit Writers' Course Workbook, January 28 – February 1, 2002.
- D. *USEPA NPDES Permit Writers' Manual*, December 1996.

- E. USEPA *Whole Effluent Toxicity (WET) Control Policy*, July 1994.
- F. USEPA *Region 9 & 10 Guidance for Implementing Whole Effluent Toxicity Programs*, May 31, 1996.
- G. USEPA *Technical Support Document for Water Quality-based Toxics Control*, March 1991.
- H. USEPA *Quality Criteria for Water – 1986* (“Gold Book”), 1986.
- I. USEPA *Ambient Water Quality Criteria for Chlorine – 1984*, 1985.
- J. USEPA *Nutrient Criteria Technical Guidance Manual for Rivers and Streams*, July 2000.
- K. USEPA *Ambient Water Quality Criteria Recommendations, Information Supporting the Development of State and Tribal Nutrient Criteria, Rivers and Streams in Nutrient Ecoregion III*, December 2000.
- L. USEPA *Rapid Bioassessment Protocols for Use in Wadeable Streams and Rivers, Periphyton, Benthic Macroinvertebrates, and Fish, Second Addition*, July 1999.
- M. SWRCB *Policy for Implementation of Toxic Standards for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Implementation Policy), March 2000.
- N. SWRCB *Implementation Policy Course Workbook*, June 2002.
- O. SWRCB *California Permit Writer Training Tool* (CAPWTT) model software.
- P. Title 22 California Code of Regulations (CCR), *Drinking Water Standards and Water Recycling Criteria*.
- Q. SWRCB *Water Quality Permit Standards Team Final Report*, April 1999.
- R. SWRCB *Administrative Procedures Manual*, May 1998.
- S. RWQCB *Water Quality Control Plan Report for the San Diego Basin (9)* (Basin Plan), September 8, 1994.
- T. RWQCB *Ambient Bioassessment Monitoring Reports: 1999 Annual Report, 2001 Annual Report, and 2002 Final Report and Preliminary Index of Biotic Integrity*, September 2002.

- U. PDMWD *Report of Waste Discharge and Application for Renewal of NPDES Permit No. CA0107492* submitted on December 20, 2002 and supplemental material submitted on April 24, 2003.
- V. RWQCB Order Nos. 93-48 and 98-60, NPDES Permit No. CA0107492, *Waste Discharge Requirements for Padre Dam Municipal Water District Padre Dam Water Recycling Facility Discharge to Sycamore Creek and the San Diego River, San Diego County.*